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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,831	01/11/2001	Yue Chen	150562.01	8533

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MICROSOFT CORPORATION
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EXAMINER
SCHNEIDER, JOSHUA D

ART UNIT	PAPER NUMBER
2182	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/09/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/09/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jranck@microsoft.com
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ntovar@microsoft.com

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/758,831	CHEN ET AL.
	Examiner	Art Unit	
	Joshua D. Schneider	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>30 October 2006</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-31</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 10/31/2006 has been entered.

Response to Arguments

2.   Applicant's arguments filed 10/31/2006 have been fully considered but they are not

persuasive.

3.   Applicant has argued that the emulator does not create failure of physical connections

between the second network adapter and the respective network servers in the private network.

It is certainly true that the physical ports do not themselves fail, but what must be found is that

the physical connection fails. The physical failure is not a mechanical failure, but a simulated

mechanical failure.

4.   Applicant has argued that there is a distinction between creating a failure of physical

connection and emulating a failure of physical connection. Applicant points to the use of

emulation in Kram as different than the created failure of the reference. This argument does not

hold up under inspection of the specification of the instant application. The instant application

teaches that a failure is the selective disabling and enabling (page 3, line 20). The specification

further explains details the failure is in fact simulated rather than an actual hardware failure

(page 10, lines 23-27). In light of the specifications teaching of that the failure is simulated, or emulated, it is unclear what distinction can exist.

5. In response to Applicant's argument that the rejection is incomplete, it is unclear what limitations are not taught. Applicant starts out by stating that there is no teaching of second network adapters due to the positioning of the emulator host. There is some confusion over what is being argued as Applicant states that Kram does and does not recite something in the same sentence (page 13, lines 5-8 of the second paragraph). Applicant's argument is based on the assertion that there are no depictions of disclosure of second adapters. However, such adapters are inherently depicted as part of the connections from one device to another device. This argument is essentially equivalent to arguing that the routers are not routing to anywhere, or are not functional, and this argument therefore cannot hold weight.

6. Applicant argues that Kram does not teach the test component including a plurality of network adapters. This argument is not persuasive, as this is never claimed. Rather the test control component and second network adapters are claimed as separate but connected components.

7. Applicant argues that the reference is not modifiable because the Kram state that the emulator must be placed with in the subnet behind the router. This argument is not persuasive, as the claims do not require anything else, as the testing element is only connected to the second adapters, in the private network, e.g. behind the router.

8. The arguments to the Somasegar reference are moot in light of the arguments to the Kram reference above.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

10.   Claims 1-7, 9-15, 17-22, 24-29, and 31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 6,314,531 to Kram in further view of How Networks Work by

Derfler and the Applicant Admitted Prior Art (AAPA).

11.   With regards to claims 1, 9, 17, 24 and 31, Kram teaches network-switching elements

with connections to external networks and connections to network servers (See Fig. 3). Kram

teaches that it is well known to test and debug for many types of communications failures,

including transient and persistent failures (column 2, lines 12-23 and 45-51), by emulating such

communication persistent failures of physical connections (column 3, lines 30-55) the associated

fail-over mechanism is tested. Kram fails to explicitly teach the tested element being a switch

between an external network and a private network. Kram does teach that the both LANs

(typically private) and WANs (typical of external connections to private networks) are well

known in the art (column 1, lines 7-59). Derfler further teaches that the switching between

LANs and WANs was well known in the art (pages 144-151, 163-167, and 196-201). These

connections between various networks are often accomplished with Point-to-Point Tunneling

Protocols (PPTP) or Private Network-to-Network Interfaces (PNNI). These well known systems

allow secure connections to private networks from external networks as taught by Derfler. The

AAPA also teaches that private networks are well known in server networks for the Internet.

These networks must be connected to public networks from which users may access the information on the private networks. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the network testing of Kram to the external network accesses of private WANs of Derfler and the AAPA in order to provide more robust testing of the fault rich WAN environment.

12. With regards to claims 2 and 15, Kram teaches that the test controller must be in communication with the external network through which it is conducting its tests (column 4, lines 3-13).

13. With regards to claims 3-7, 10-14, 18-22, and 25-29, Kram teaches using data operations such as delays, drops (deletions), reordering (shuffling), and introducing errors (corruption), in order to test and debug network systems (see abstract and column 3, lines 33-50).

14. Claims 8, 16, 23, and 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,314,531 to Kram, How Networks Work by Derfler, and the Applicant Admitted Prior Art (AAPA) as applied to claims 1-7, 9-15, 17-22, 24-29, and 31 above, and further in view of "Crash-Proof," PC Magazine, by Derfler.

15. With regards to claims 8, 16, 23, and 30, Kram, How Networks Work by Derfler, and the AAPA fail to teach network flow monitoring in the traditional sense of the phrase, though it is well known in the art and necessary to the rerouting of the data for the emulation that is taught. However, as taught in "Crash-Proof," by Derfler, monitoring flows for load balancing is very well known in the art (page 136 and 137). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the load balancing of Derfler with the switch of Kram, Derfler, and the AAPA in order to create a more robust network switching system.

16.   Claims 1-7, 9-15, 17-22, 24-29, and 31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 6,314,531 to Kram in further view of How Networks Work by

Derfler, the Applicant Admitted Prior Art (AAPA), and U.S. Patent 5,862,362 to Somasegar et

al.

17.   With regards to claims 1, 9, 17, 24 and 31, Kram teaches network-switching elements

with connections to external networks and connections to network servers (See Fig. 3). Kram

teaches that it is well known to test and debug for many types of communications failures,

including transient and persistent failures (column 2, lines 12-23 and 45-51), by emulating such

communication persistent failures of physical connections (column 3, lines 30-55) the associated

fail-over mechanism is tested. Kram fails to explicitly teach the tested element being a switch

between an external network and a private network. Kram does teach that the both LANs

(typically private) and WANs (typical of external connections to private networks) are well

known in the art (column 1, lines 7-59). Derfler further teaches that the switching between

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Protocols (PPTP) or Private Network-to-Network Interfaces (PNNI). These well known systems

allow secure connections to private networks from external networks as taught by Derfler. The

AAPA also teaches that private networks are well known in server networks for the Internet.

These networks must be connected to public networks from which users may access the

information on the private networks. It would have been obvious to one of ordinary skill in the

art at the time of invention to combine the network testing of Kram to the external network

accesses of private WANs of Derfler and the AAPA in order to provide more robust testing of

the fault rich WAN environment.

18.   With further regards to claims 1, 9, 17, 24 and 31, Kram does not explicitly call the

creation persistent connection failures the "creation of failures of physical connections."

However, Somasegar teaches that to create failures of physical connections normally caused by

unplugging the connection is accomplished by using substitute handler systems such as the one

described by Kram to effectively cut off the sending and receiving of data (column 1, line 29,

through column 2, line 20). It would have been obvious to one of ordinary skill in the art at the

time of invention to use the creation of failures of physical connections of Somasegar with the

network test system of Kram in order to test network robustness to better identify errors and

verify functionality.

19.   With regards to claims 2 and 15, Kram teaches that the test controller must be in

communication with the external network through which it is conducting its tests (column 4,

lines 3-13).

20.   With regards to claims 3-7, 10-14, 18-22, and 25-29, Kram teaches using data operations

such as delays, drops (deletions), reordering (shuffling), and introducing errors (corruption), in

order to test and debug network systems (see abstract and column 3, lines 33-50).

21.   Claims 8, 16, 23, and 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent 6,314,531 to Kram, How Networks Work by Derfler, the Applicant Admitted Prior

Art (AAPA), and U.S. Patent 5,862,362 to Somasegar et al. as applied to claims 1-7, 9-15, 17-22,

24-29, and 31 above, and further in view of "Crash-Proof," PC Magazine, by Derfler.

22. With regards to claims 8, 16, 23, and 30, Kram, <u>How Networks Work</u> by Derfler, Somasegar, and the AAPA fail to teach network flow monitoring in the traditional sense of the phrase, though it is well known in the art and necessary to the rerouting of the data for the emulation that is taught. However, as taught in "Crash-Proof," by Derfler, monitoring flows for load balancing is very well known in the art (page 136 and 137). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the load balancing of Derfler with the switch of Kram, Derfler, and the AAPA in order to create a more robust network switching system.

Conclusion

23. This is a continuation of applicant's earlier Application No. 09/758,831. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however,
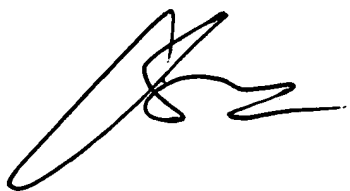
event will the statutory period for reply expire later than SIX MONTHS from the mailing date of

this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158.

The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS

KIM HUYNH
SUPERVISORY PATENT EXAMINER

3/5/07